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1905/06

University of Cincinnati Record

Series I, Vol. II, No. 9. JANUARY 15, 1906.

Announcement of the

GRADUATE SCHOOL

1905-1906

Published by the University of Cincinnati, at the University Press, Cincinnati, Ohio.

Entered July 28, 1904, at Cincinnati, Ohio, as second-class matter under act of Congress of July 16, 1894.

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ISSUED SEMI-MONTHLY.

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AT THE UNIVERSITY PRESS,
BURNET WOODS, CINCINNATI, O.

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GRADUATE SCHOOL.

FACULTY OF THE GRADUATE SCHOOL.

CHARLES WILLIAM DABNEY, Ph. D., LL. D., President of the University.

WAYLAND RICHARDSON BENEDICT, A. B., Professor of Philosophy.

JERMAIN GILDERSLEEVE PORTER, Ph. D., Director of the Observatory and Professor of Astronomy.

EDWARD MILES BROWN, Ph. D., Professor of the English Language and Literature.

FREDERICK CHARLES HICKS, Ph. D., Sinton Professor of Economics and Civics.

HARRIS HANCOCK, Ph. D., Dr. Sc., Professor of Mathematics.

JOHN MILLER BURNAM, Ph. D., Professor of Latin.

MAX POLL, Ph. D., Professor of the Germanic Languages.

JOSEPH EDWARD HARRY, Ph. D., Professor of Greek and Dean of the College of Liberal Arts.

MERRICK WHITCOMB, Ph. D., Professor of History, and Chairman of the Graduate Faculty.

LOUIS TRENCHARD MORE, Ph. D., Professor of Physics.

THOMAS EVANS, Ph. D., Professor of Technical Chemistry.

MICHAEL FREDERICK GUYER, Ph. D., Professor of Biology.

BURTIS BURR BREESE, Ph. D., Professor of Psychology.

WILLIAM PAXTON BURRIS, A. M., Professor of History and Principles of Education.

MARCO F. LIBERMA, A. B., Associate Professor of Romance Languages.

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GEORGE MOREY MILLER, A. M., Assistant Professor of English.

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HENRY BAYARD PHILLIPS, Ph. D., Instructor in Mathematics.

HENNING W. PRENTIS, Jr., A. B., Secretary of the University.

DANIEL LAURENCE, B. S., Clerk and Collector.

LELIA AMANDA GARVIN, B. L., Registrar.

HARRIET EVANS HODGE, Librarian.

CALENDAR

1906

January 30 .....Second Semester of Graduate School begins.

February 22.....Holiday, Washington's Birthday.

April 16, 17, 18 .....Easter Vacation.

May 28, Monday .....Final Examinations begin in Graduate School.

May 30.....Holiday, Memorial Day.

June 2 .....University Commencement.

September 24, 29 .....Period for Registration in Graduate School.

November 29.....Holiday, Thanksgiving.

December 21 .....Christmas Vacation begins.

THE UNIVERSITY LIBRARY.

The Van Wormer Library Building is of stone, fire-proof throughout, and is built in accordance with the most approved modern plans of library construction. The rooms have been furnished by the University with heavy tables and desks of quartered oak.

The University Library, in this building, contains about 45,000 volumes and 7,800 pamphlets. In the Reference Room about 2,000 volumes are arranged on open shelves, to which the students have free access. The Periodical Room contains the current numbers of 300 periodicals. The Library is provided with a card catalogue of its own books, and also with card catalogues of the books in the Public Library of Cincinnati and in the Library of the Historical and Philosophical Society of Ohio. It is open every week day from 8 a. m. to 5 p. m.

The Library contains some valuable special collections:

The Robert Clarke Library, comprising 6,761 volumes, was given by William A. Procter. This collection is especially rich in Americana, and contains some rare first editions.

The Enoch T. Carson Shakspere Library, 1,420 volumes, was also given by William A. Procter.

The Bruhl Library, of about 2.000 volumes, contains many rare and valuable works on the history, archaeology and ethnology of Mexico and Central America. This collection was made by Dr. Gustav Bruhl, and presented to the Library by Mr. Theodore A. Bruhl.

The Wilson Library, consisting mainly of works of literature and criticism, in English, French and Italian, 810 volumes, was given by Judge Moses F. Wilson.

The Merrill Library of engineering works, 876 volumes, 478 pamphlets, and 185 maps, charts and photo-lithographs, was given by Mrs. William E. Merrill.

The Whittaker Medical Library, the bequest of Dr. James T. Whittaker to the Medical College of Ohio, comprises 1,547 volumes and 538 pamphlets.

The Thoms Library, miscellaneous works, was part of the bequest of the late Matthew Thoms.

The Laura Seasongood Alcove contains books purchased annually from the proceeds of an endowment provided in 1894 by the will of the late Laura Seasongood.

INFORMATION FOR STUDENTS.

ADMISSION.

The degree of Bachelor of Arts conferred by the University of Cincinnati entitles its holder to admission to the Graduate School. The University also offers its degrees of Master of Arts and Doctor of Philosophy to graduates of other institutions of high standing who shall complete their work in conformity with the regulations of the Graduate School.

A student entering the Graduate School will apply to the Chairman of the Graduate Faculty, during the first week of the autumn semester, between the hours of 9 and 12 A. M. (September 24-29, 1906.) If not a graduate of this university the applicant should be prepared to give proof of his academic degree or degrees, and should afford evidence of the character of the courses he has taken in the college from which he has been graduated. On the presentation of satisfactory credentials a card of admission to the Graduate School will be issued to the applicant. Students will not be admitted to the Graduate School after the third week of the semester.

FEES IN THE GRADUATE SCHOOL.

Library Fee.—All graduate students are charged a library fee of five dollars per year.

Tuition.—Graduate students, not residents of Cincinnati, are charged a *tuition fee* of three dollars per hour of instruction per week, per semester, in advance.

Laboratory Fees.—Biology, ten dollars per semester in advance. Physics, ten dollars per semester in advance. Chemistry, fifteen dollars per semester in advance.

A deposit of fifteen dollars at the opening of the semester is required of all students taking Chemistry, to insure the University against loss by breakage in the Chemical Laboratory. This deposit will be returned at the end of the year after deductions have been made for breakage.

Diploma Fees.—A *diploma fee* of ten dollars is required of those who receive the Master's degree and twenty dollars of those who receive the Doctor's degree. This fee must be paid

at least two weeks before the day appointed for conferring the degree. If for any reason the degree is not conferred the fee will be returned.

INSTRUCTION.

The unit of instruction in the Graduate School is one hour a week for one semester.

The nature of the graduate student's work will vary with the subjects pursued, but it is intended that the student's work shall require a regular attendance at class meetings or in the laboratory, and shall not be in any respect of that character of work known as "in absentia." No credit shall be given toward a graduate degree for work done prior to the conferring of the degree of Bachelor of Arts or its equivalent. No course in which a student obtains a grade below "B" will count for credit in the Graduate School.

REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS.

In order to receive the Master's degree, the candidate must have completed satisfactorily courses representing twenty-four units of graduate instruction, of which at least twelve units shall be elected in one department. In case the candidate has previously elected the work in the department as a major for the completion of the undergraduate degree, he shall, under the direction of the head of the department concerned, elect sufficient work in some allied department to complete the required twelve units. The requirement of a thesis is optional with the head of the department in which the major subject is taken. Wherever a thesis for the Master's degree is required, it must be filed with the Registrar not less than six weeks before the close of the final semester of graduate study. The work for the Master's degree shall occupy the attention of the student for at least one full year in residence in the Graduate School.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

For the Doctor's degree, three years of graduate study will ordinarily be required. In exceptional cases a student may be admitted to examinations at the end of two years. Where his college training has been defective or he cannot devote his whole

time to the work, the period of study will be longer than stated above. At least the last year of study must be spent in residence at the University of Cincinnati. Students may be permitted to count for the Doctor's degree work done for the Master's degree, provided such work is of a satisfactory character.

A candidate for the Doctor's degree shall designate, at the time of his admission to the Graduate School, three subjects which he desires to pursue. These shall be known as a major and two minor subjects, of which not more than two shall be selected in one department, and the candidate shall satisfy the Committee on Graduate Instruction that his selection has received the approval of the heads of the departments in which the courses have been selected. These heads of departments, together with the Committee on Graduate Instruction, shall constitute an Advisory Committee, under whose direction the candidate shall pursue his graduate course.

Candidates for the Doctor's degree are expected to be able to read French and German, and shall be required to complete forty-eight units of instruction embodied in a major and two minor subjects, thirty units of which must be given to the major subject, and to pass such written examinations on his major and minor subjects as the Advisory Committee may indicate. The statement of the number of units required for the Doctor's degree is to be taken as a minimum requirement. The degree is given, not as a result of the completion of a certain number of units of study, but on the ground of long study and scientific accomplishment.

The candidate shall furthermore be required to present in such form as the Advisory Committee may determine, a thesis which will give evidence of high attainment and power of independent research, and he shall pass satisfactorily an oral examination before the faculty.

All theses offered for the Doctor's degree must be filed with the Registrar not later than six weeks before the close of the final semester of graduate study. Moreover, each student upon whom the degree of Doctor of Philosophy is conferred, is required to deposit in the University Library one hundred printed copies of his thesis. The candidate may receive his diploma before the thesis is printed, provided a type-written copy is deposited with the Librarian and the sum of fifty dollars with the Registrar of the University. This sum will be returned upon presentation to the Library of the required number of printed copies of the thesis.

ADMISSION TO ADVANCED STANDING.

Work done at other universities may be accepted as an equivalent for part of the work required for a graduate degree. All claims for such credit, together with all claims for advanced standing, must be filed with the Chairman of the Graduate Faculty within three weeks after the student enters upon his work at the University or resumes his work after a leave of absence for the purpose of carrying on work at another university.

COURSES OF INSTRUCTION.

ASTRONOMY.

Professor Porter.

FOR UNDERGRADUATES AND GRADUATES.

4a. Celestial Mechanics.—Investigation of the fundamental equations of motion and of the formulae for determining the positions of bodies revolving about the sun. Text-book: Watson's *Theoretical Astronomy.* W., 2-4. Professor Porter.

5b. Computation of a parabolic orbit from three observations, and of **an elliptic orbit** with perturbations. Text-book: Watson's *Theoretical Astronomy.* W., 2-4. Professor Porter.

Courses 4a and 5b are given at the Observatory.

BIOLOGY.

Professor Guyer, Assistant Professor Benedict.

FOR UNDERGRADUATES AND GRADUATES.

3b. Vertebrate Zoology and Comparative Anatomy.—Lectures on the anatomy, classification, habits and distribution of vertebrates, to be accompanied by a study of the living forms in the field and at the Zoological Garden. The anatomy is studied in a comparative way, with special reference to the evolution of the various organs. The laboratory work consists in the careful dissection of selected forms. M., W., F., 10:30-11:30; M., W., F., 1:30-4:00, *second semester.* Professor Guyer.

Course 3b is open to students who have passed in Course 4a. It is omitted in 1905-1906; given in 1906-1907.

4a. Embryology of Vertebrates.—Lectures, demonstrations, and laboratory work, dealing with the history of the germ cells,

cleavage of the ovum, embryo formation and the development of the principal organs of the body. The laboratory work is based largely on the frog, chick and pig. M., W., F., 10:30-11:30; M., W., F., 1:30-4:00, *first semester.* Professor Guyer.

Course 4a is open to students who have passed in Course 1. It is omitted in 1905-06; given in 1906-07.

5. **Physiology and Histology.**—Given as one course.

Microscopical Methods and Histology.—The work embraces general and special methods of preparing material for histological or embryological study. The microscopic structure of tissues and organs is studied in conjunction with the work in physiology. Laboratory work on the histology of a given organ or system always precedes the corresponding physiological work.

Physiology.—A discussion of the fundamental principles of physiology and their application to the human body. The lectures are based upon the results derived from the laboratory work. M., W., F., 10:30-11:30; M., W., F., 1:30-4:00, throughout the year. Professor Guyer.

Course 5 is open to students who have passed in Course 1. It is given in 1905-06; omitted in 1906-07.

6. **Field Zoology.**—Excursions are made to study the habits of animals, their homes, their dependence one upon another, and their relations to the surrounding physical conditions. Practical directions for collecting, identifying and preserving specimens will form a part of the work. Two periods, hours to be arranged. Assistant Professor Benedict.

PRIMARILY FOR GRADUATES.

7. **Current Problems in Biology.** — Lectures to accompany courses in research. M., W., 4:00-5:00. Professor Guyer.

8. **Research.**—Hours to be arranged. Professor Guyer.

9. **Seminar.** — For instructors and advanced students. A reading knowledge of French or German is required. Th., 4:00-5:00. Professor Guyer.

CHEMISTRY.

Professor Evans, Assistant Professor Snell.

FOR UNDERGRADUATES AND GRADUATES.

12. **Physical Chemistry.**—Lectures and recitations. A general introductory course of three exercises a week throughout the year in Physical and Electro-chemistry. It is recommended that this course be accompanied by Course 13. T., Th., S., 10:30-11:30. Assistant Professor Snell.

Course 12 is open to students who have passed in Course 6, 7 and 8; in Physics, Courses 1 and 2; in French, Courses 1 and 2; in German, Courses 1 and 2, and in Mathematics, Course 5.

13. Physical Chemistry, Laboratory.—Two exercises a week throughout the year, illustrating the general methods of Physical and Electro-chemistry. T., Th., 1:00-4:00.

Assistant Professor Snell.

Course 13 is intended to accompany Course 12, and is open to students who are taking or have taken that course.

20. Advanced Organic Chemistry.—Lectures, embracing a systematic study of the principles and practice of Organic Chemistry, and treating of the constitution, properties and mode of formation of the more important members of each class of organic compounds. T., Th., S., 11:30-12:30.

Professor Evans.

Course 20 is open to students who have passed in Course 4b; in French, Courses 1 and 2: in German, Courses 1 and 2. Students are advised to take Course 8b as a preliminary to Course 20. This course may be elected as a minor by graduate students not taking Chemistry as a major.

21a. Organic Chemistry, Laboratory.—Practice in ultimate analysis, molecular weight determinations and the preparation of a number of typical organic compounds. M., W., Th., F., 1:30-4:30, *first semester.* Professor Evans.

Course 21a is open to students who have passed in Course 7; in French, Courses 1 and 2; in German, Courses 1 and 2. This course may be elected as a minor by graduate students not taking Chemistry as a major.

22b. Physiological Chemistry.—Laboratory practice, with introductory lectures upon physiologically important substances, and practice in their identification and quantitative determination. Th., F., 1:00-4:00, *second semester.* Professor Evans.

Course 22b is open to students who have passed in Course 8b, and is especially intended for students of Biology and for those who expect to study medicine.

PRIMARILY FOR GRADUATES.

30. Research in Organic Chemistry.—Eight or more laboratory periods a week, with collateral reading and practice in bibliography. The nature of the research will be determined by the special training and the inclination of the student.

Professor Evans.

31. Research in Technical Chemistry.—Eight or more laboratory periods a week, devoted to the solution of some problem in industrial chemistry, with collateral reading and practice in bibliography. The nature of the research will depend upon the special training and the inclination of the student.

Professor Evans.

32. Research in Physical Chemistry. — This course will consist of laboratory work and a systematic course of reading along

the special line of the investigation. Ample provision will be made for apparatus necessary to facilitate the work. Hours to be arranged with the instructor. Dr. Snell.

33. Research in Inorganic Chemistry. — This course is intended for students who are desirous of investigating some particular problem in inorganic chemistry. It will comprise laboratory work and collateral reading. Hours to be arranged with the instructor. Dr. Snell.

ECONOMICS.

(The Sinton Professorship.)

Professor Hicks.

FOR UNDERGRADUATES AND GRADUATES.

3a. The State and Industries.—A study of the relation of the State to industrial activity, including a consideration of collectivism and individualism. Attention will be given also to the question of public and private ownership of municipal monopolies. T., Th., 9:30-10:30, *first semester.* Professor Hicks.

Course 3a is open to students who have passed in Courses 1a and 2b. It is given in 1905-06; omitted in 1906-07.

4b. Labor.—In this course the existing labor situation is analyzed, special attention being given to labor legislation, organization of laborers and of employers, strikes, lockouts, injunctions and arbitration. T., Th., 9:30-10:30, *second semester.* Professor Hicks.

Course 4b is open to students who have passed in Courses 1a and 2b. It is given in 1905-06; omitted in 1906-07.

5a. The Tariff.—A description of the tariff policy of the United States and its relation to existing industrial conditions, with an analysis of the arguments for and against protection. M., W., F., 9:30-10:30, *first semester.* Professor Hicks.

Course 5a is open to students who have passed in Courses 1a and 2b. It is omitted in 1905-06; given in 1906-07.

6a. Trusts.—The causes and effects of trusts; anti-trust legislation, its character and results; proposed remedies for trust evils; the relation of the trust question to the corporation problem. M., W., F., 9:30-10:30, *first semester.* Professor Hicks.

Course 6a is open to students who have passed in Courses 1a and 2b. It is given in 1905-06; omitted in 1906-07.

7b. Money.—The essentials of an efficient monetary system; the problem of standard money, bimetallism *vs.* monometallism; credit money, government and bank issues; the present needs in the United States. M., W., F., 9:30-10:30, *second semester.* Professor Hicks.

Course 7b is open to students who have passed in Course 1a and 2b. It is omitted in 1905-06; given in 1906-07.

8b. Transportation.—This course is devoted principally to a study of the railroad problem. It includes the theory and practice of rate-making, the evils of excessive and discriminating rates, government ownership of railroads, and public control through commissions and general legislation. M., W., F., 9:30-10:30, *second semester.* Professor Hicks.

Course 8b is open to students who have passed in Courses 1a and 2b. It is given in 1905-06; omitted in 1906-07.

9a. Theory of Finance.—The fundamental principles of public finance, with especial reference to taxation. T., Th., 9:30-10:30, *first semester.* Professor Hicks.

Course 9a is open to students who have passed in Course 1a. It is omitted in 1905-06; given in 1906-07.

10b. History of Public Finance.—After a brief survey of the general development of financial systems, the history of public finance in the United States will be taken up and a comparison made with the revenue systems of the leading European nations. T., Th., 9:30-10:30, *second semester.* Professor Hicks.

Course 10b is open to students who have passed in Course 9a. It is omitted in 1905-06; given in 1906-07.

11. Economics, Theoretical and Applied.—The essentials of economic theory, a summary of the history of industrial development and a consideration of some of the leading problems. T., Th., 10:30-11:30. Professor Hicks.

Course 11 is open to Engineering students only.

PRIMARILY FOR GRADUATES.

12. Seminary.—This course is intended to afford opportunity for the detailed study of special problems in economics and finance. Credit according to work done. M., 4:00.
Professor Hicks.

EDUCATION.

Professor Burris, Professor Hall.

FOR UNDERGRADUATES AND GRADUATES.

9. Philosophy of Education.—Lectures, readings, reports and discussions. An examination of the fundamental principles underlying a rational theory of education as derived from metaphysics, logic, ethics, sociology, psychology, and biology. Educational problems and processses considered in the light of the presuppositions thus derived. Open, after consultation, to properly qualified seniors and graduates. T. and Th. at 4:00
Professor Burris.

FOR GRADUATES.

10. Seminar.—Investigations and reports on special topics in

the history and philosophy of education. A part of the time will be devoted to reports upon discussions of current educational problems. For graduates.

Hours to be arranged. Professor Burris.

11. Supervision and Critic Work.—This course is intended only for those who are preparing to become supervisors or Principals of public schools, or critics in normal schools. It includes an intensive study of the important principles of education and their application to class instruction. Observation and conference.

This course is also open to teachers in Cincinnati and vicinity. M., W., F., 5:00-6:00. Professor Hall.

ENGLISH.

Professor Brown, Assistant Professor Miller, Miss Czarnomska, Miss McVea.

FOR UNDERGRADUATES AND GRADUATES.

5. Shakespeare and Contemporary Dramatists.—Romeo and Juliet, A Midsummer Night's Dream, Hamlet, King Lear, The Tempest. Private reading of the remaining plays. Selected plays by Ben Jonson, Beaumont and Fletcher, Dekker, Webster and others. Lectures, reports, discussions. M., W., F., 9:30-10:30, throughout the year. Professor Brown.

Course 5 is open to students who have passed in Courses 1 and 3

14. The History of the English Drama to 1593.—Miracle-plays, Moralities. Interludes. Comedy and tragedy before Shakespeare. Special study of Marlowe and the chronicle-history. Lectures, reports, discussions. M., W., F., 11:30-12:30, throughout the year. Miss Czarnomska.

Course 14 is open to students who have passed in Courses 1 and 3.

19b. The English and Scottish Popular Ballads.—A study of the characteristics of folk-poetry. The origin and development of the popular ballad. Lectures, reading and discussion of selected ballads, comparative study of ballads, reports of reading, essays. T., Th., 10:30-11:30, *second semester.* Assistant Professor Miller.

Course 19b is open to students who have passed in Courses 1 and 3. It is omitted in 1905-06.

6. Victorian Poets.—Tennyson, Browning, Arnold, and Rossetti. Study of selected poems and dramas, together with as wide reading as possible in the works of these poets and of contemporary poets. Reports, essays and discussions. W., F., 10:30-11:30, throughout the year. Professor Brown.

Course 6 is open to undergraduates who have passed in Courses 1, 3 and 5, or 14, and have shown aptitude for literary study. Graduates must show satisfactory preparation.

16. Early Nineteenth Century Poets. — Wordsworth, Byron, Shelley, Keats, and some of their contemporaries. W., F., 10:30-11:30. throughout the year. Miss Czarnomska.

The requirements for admission are the same as for Course 6.

17b. Literary Criticism.—An examination of the theories and opinions concerning poetry and the drama of some of the greater critics, from Dryden to Matthew Arnold. Discussions, reports. T., Th., 10:30-11:30, *second semester.*

Assistant Professor Miller.

The requirements for admission are the same as for Course 6.

18. American Literature.—Irving, Hawthorne, Poe, Emerson, Longfellow, Lowell, Holmes, and some of their contemporaries. T., Th., 1:30-2:30. Miss McVea.

Course 18 is open to students who have passed in Courses 1 and 3.

7a. Old English.—An elementary course in Old English (Bright's *Anglo-Saxon Reader*). M., W., F., 8:30-9:30, *first semester.* Professor Brown.

PRIMARILY FOR GRADUATES.

8b. Old English Poetry.—Beowulf. Reading in the history of Old English poetry. M., W., F., 8:30-9:30, *second semester.*

Professor Brown.

Course 8b is open to students who have passed in Course 7a.

9. Middle English Poetry.—A study of Chaucer and of selected poems from earlier Middle English poetry (1150-1350). Reading in the history of Middle English literature. T., Th., 8:30-9:30, throughout the year. Professor Brown.

Course 9 is open to students who have passed in or are taking Course 7a. Students who choose English as a major subject must take Courses 7a, 8b and 9.

10. Seminary.—Judith, Juliana, and other selected Old English poems. T., 10:30. Professor Brown.

Course 10 is open to students who have passed in Course 7a. Course 10 is omitted in 1905-06.

FOR GRADUATES ONLY.

20. Graduate Study.—Study of special topics in English philology or literature. Credit according to work done, either two or three hours. Hours to be arranged. Professor Brown.

GERMAN.

Professor Poll, Assistant Professor Lotspeich.

FOR UNDERGRADUATES AND GRADUATES.

5. History of German Literature to the Nineteenth Century, with special study of the Classic Periods of the Twelfth and Eighteenth Centuries. Among other works the following will be read in 1905-06; The *Nibelungenlied* (translated into modern German by R. Woerner); Gottfried von Strassburg's *Tristan* (translated into modern German by W. Hertz); Walther von der Vogelweide's *Gedichte* (translated into modern German by K. Pannier); Lessing's *Nathan*: Schiller's *Wallenstein* and *Braut von Messina*, and Goethe's *Faust*. Lectures in German, collateral reading. M., W., F., 10:30-11:30. Professor Poll.

Course 5 is open to students who have passed in Course 4.

6. German Literature of the Nineteenth Century.—The Romantic School. The Novel. The Drama and Lyrics. Lectures, collateral reading and written reports by the class. T., Th., 11:30-12:30. Professor Poll.

Course 6 is open to students who have passed in Course 4.

10. German Composition, Advanced Course.—Advanced composition and practice in writing German. S., 9:30-11:30. Professor Poll.

PRIMARILY FOR GRADUATES.

12a. Interpretation of the Second Part of Faust and Study of the Legend.—Collateral reading and written reports. T., Th., 10:30-11:30, *first semester*. Professor Poll.

Course 12a is open to students who have passed in Course 5.

11b. German Literature from the Reformation to the Classic Period of the Eighteenth Century.—Lectures in German and collateral reading. T., Th., 10:30-11:30, *second semester*. Professor Poll.

Course 11b is open to students who have passed in Course 5 or 6.

7. Middle High-German.—Wright's Middle High-German Primer. Bachmann's *Mittelhochdeutsches Lesebuch*. Translation into modern German and lectures in German. M., W., F., 3:00-4:00. Assistant Professor Lotspeich.

8b. Old High-German.—Braune's *Althochdeutsche Grammatik*, and the same author's *Althochdeutsches Lesebuch* are used as textbooks. Translation into modern German and lectures in German. M., W., F., 4:00-5:00, *second semester*. Assistant Professor Lotspeich.

Course 8b is omitted in 1906-07; given in 1907-08.

13b. Gothic.—Braune's *Gotische Grammatik*; reading of selections from the Bible; translation of Ulfilas. M., W., F., 4:00-5:00, *second semester.* Assistant Professor Lotspeich.

Course 13b is given in 1906-07; to be omitted in 1907-08.

9. German Seminary.—The origin and development of the German drama. T., Th., 11:30-12:30. Professor Poll.

26a. Old Norse.—Introductory. Holthausen's *Altisländisches Elementarbuch* and the same author's *Altisländisches Lesebuch.* Reading of selections from the sagas. M., W., F., 4:00-5:00, *first semester.* Assistant Professor Lotspeich.

27a. Old Norse.—Advanced. Holthausen's *Altisländisches Elementarbuch.* Finnur Jónsson's *Eddalieder.* Gehring's *Glossar zu den liedern der Edda.* Rapid review of grammar; reading of selected poems of the Edda. M., W., F., 4:00-5:00, *first semester.* Assistant Professor Lotspeich.

Course 27a is omitted 1906-07; given in 1907-8.

GREEK.

Professor Harry.

PRIMARILY FOR GRADUATES.

6. Plato.—Hour to be arranged. Professor Harry.

7. Greek Seminary.—The Historians (1906-07). Th. 3:00-5:00. Professor Harry.

Course 7 is open to graduates and to those who have completed the undergraduate courses in Greek.

HISTORY.

Professor Whitcomb, Dr. Cox.

FOR UNDERGRADUATES AND GRADUATES.

25. European History Since 1870.—An advanced course dealing with the problems of Modern European History. France since 1870; Germany since 1870; the Kingdom of Italy; the Eastern Question; Colonization. T., Th., 10:30-11:30, throughout the year. Professor Whitcomb.

Course 25 is open to students who have passed in Course 3.

22. Seminary Course.—For the year 1906-07 the Seminary will take up the early period of the French Revolution. Two hours, period to be arranged. Professor Whitcomb.

14. English and American Constitutional History.—The course will trace the development of English political institutions from the Saxon period of 1688; the transfer of these institutions to America and their development during the Colonial period; and

the most important constitutional changes from the Revolution to the Civil War. Open only to those who have taken Course 13 and either Course 30 or Course 31. To be given in 1906-1907. T., Th., at 11:30. Dr. Cox.

20. Seminary in American History.—The Southwest. The field for intensive study will vary from year to year. Each student will be expected to prepare from original sources formal reports to be submitted to the seminary for comment and criticism. Seniors may be admitted. Hours to be arranged.
Dr. Cox.

LATIN.

Professor Burnam, Dr. Allen.

FOR UNDERGRADUATES AND GRADUATES.

9. Latin Epigraphy.—Or Roman Public Institutions. Two hours, to be arranged. Dr. Allen.

FOR GRADUATES.—HOURS IN ALL CASES TO BE ARRANGED.

10. Latin and Romance Palaeography.—The history of the Latin alphabet in Western Europe, from A. D. 1 to the close of the fifteenth century, including an account of books, their makers, materials, etc., in ancient and medieval times. Students will have abundant practice in reading facsimiles. Two hours.
Professor Burnam.

Course 10 must be preceded by at least four years of undergraduate work, and requires a reading knowledge of French and German.

11. Latin Seminary.—Three hours. Professor Burnam.

12. Roman Religion.—Students must provide themselves with G. Wissowa's *Religion und Kultus der Roemer,* Muenchen, 1902. Two hours. Professor Burnam.

16. Graduate Study.—Credit according to work done.
Professor Burnam.

1. Sanskrit. A three hour elementary course using Whitney's Grammar and Perry's Primer. Professor Burnam.

2. Sanskrit. A three hour course in Lanaman's Reader, alternating with Course 1. Not given in 1905-06.
Professor Burnam.

MATHEMATICS.

Professor Hancock, Dr. Phillips.

PRIMARILY FOR GRADUATES.

24. Elliptic Integrals and Elliptic Functions.—The theories of Legendre, Abel, Jacobi and of Riemann, Hermite, Weierstrass. Lectures founded on the Berlin lectures of Fuchs, Schwarz and Weierstrass. W., 4:00-6:00: S., 11:30-12:30. Omitted in 1906-1907. Professor Hancock.

25. Application of Elliptic Functions.—The general theory of Course No. 24 specialized and illustrated by problems in Mechanics and in the Theory of Numbers, and through geometrical investigations, including the analytical representation of curves aud surfaces. The solution of certain algebraical and differential equations. Construction of tables of elliptic Integrals. The general theory of transformation. Lectures. W., 4:00-6:00; S., 11:30-12:30. Professor Hancock.

20. Theory of Maxima and Minima involving several variables. The Calculus of Variations. Lectures. W., 4:00-6:00; S., 11:30-12:30. Omitted in 1906-1907. Professor Hancock.

18a. Theory of Minimal Surfaces.—The developments of Lie, Darboux, Schwarz and Weierstrass compared with those of earlier writers. Lectures. T., Th., S., 8:30-9:30, *first semester.* Professor Hancock.

19b. The Extended Realms of Rationality.—Lectures. T., Th., S., 8:30-9:30, *second semester.* Professor Hancock.

11. Fourier's Series and Spherical Harmonics. — Byerly, *Fourier's Series and Spherical Harmonics.* Lectures, M., W., F., 2:00-3:00. Mr. ———.

21. Theory of Functions.—An advanced course including the Hyperelliptic and Abelian Functions. Lectures. S., 9:30-11:30. Dr. Phillips.

PHILOSOPHY.

Professor Benedict.

FOR UNDERGRADUATES AND GRADUATES.

7. Ethics, Advanced. — Contrasted world-views and their ethical implications. Kantian Ethics. Ethics and Theism. M., W., F., 8:30-9:30. Professor Benedict.

4. History of Philosophy. Introductory.—The Pre-Socratic Greek Schools, with an examination of such fragments of their teaching as are accessible in English. An outline of Plato's philosophical doctrine, with an exposition of the same by lecture and discussion. An outline of Aristotle's philosophy, with an exposition of the same. The doctrines of the Stoics. T., Th., 10:30-11:30. Professor Benedict.

8. History of Philosophy. Advanced.—Kant's Critical Philosophy. The essential teachings in Critique of Pure Reason. The Practical Reason. An estimate of the Neo-Kantian position. Hours to be arranged with the instructor.

Professor Benedict.

Course 8 is open to those students only who can read the German texts.

PHYSICS.

Professor More, Assistant Professor Ives.

FOR UNDERGRADUATES AND GRADUATES.

3. Theoretical Physics.—A course of lectures on the mathematical laws of mechanics and electricity. Three lectures weekly. M., W., F., 1:30-2:30. Professor More.

Pre-requisites, Physics 1 and Calculus (Math. 5). The course may be elected at the beginning of either semester.

15b. Theory of Heat and Light.—Lectures on theory of Heat and Light. Three lectures weekly, *second semester*.

Assistant Professor Ives.

8. Experimental Physics.—The exact determination of some of the important standard experiments.

Professor More and Assistant Professor Ives.

10. Seminary. — The reading and discussion of important treatises in Physics. Twice weekly.

Professor More.

FOR GRADUATES ONLY.

7. Lectures on the Theory of Mechanics and Sound, Light and Heat, or Electricity and Magnetism. Three times weekly.

Professor More.

9. Research Work.—Those taking this course will be supplied with all apparatus needed, and the assistance of the mechanician will be at their disposal.

Professor More and Assistant Professor Ives.

PSYCHOLOGY.

Professor Breese.

FOR UNDERGRADUATES AND GRADUATES.

1. Introductory Psychology.—An analytical study of mental phenomena, with special attention to accurate observation and description. A general account of the subject matter of psychology. M., W., F., 11:30-12:30. Professor Breese.

2. **Experimental Psychology.** — Laboratory course. Experiments and lectures. One recitation and two laboratory periods. M., W., 2:00-4.30; F., 2:00-3:00. Professor Breese.

PRIMARILY FOR GRADUATES.

3. **Research.**—Special investigations in the psychological laboratory. Hours to be arranged. Professor Breese.

4. **Seminar.**—A critical study of the most important problems in psychology. Reports and discussions. Hours to be arranged. Professor Breese.

ROMANCE LANGUAGES.

Associate Professor Liberma, Dr. Umphrey.

PRIMARILY FOR GRADUATES.

12. **Old French.**—*La Chanson de Roland*; Chrétien de Troyes, *Yvain*; *Aucassin et Nicollette*. Old French phonology and inflections; versification. Lectures, text interpretation and collateral reading. T., Th., 2:00-3:00. Associate Professor Liberma.

Course 12 is open to students who have passed in Course 4. It is omitted in 1907-08; will be given in 1906-07.

19. **Provencal Language and Literature.**—An examination of the phonetic laws underlying the transformation of Vulgar Latin into Provençal; reading of Provençal texts, especially the poetry of the Troubadours. Text-books: Carl Appel, *Provenzalische Chresthomatic* (2nd ed., Leipzig, 1902); Grandgent, *An Outline of the Phonology and Morphology of Old Provençal.* Two hours, period to be arranged. Dr. Umphrey.

14. **Early Spanish.**—Phonology and Inflections. *El Poema del Cid* and other early monuments of Spanish. History of Spanish Literature to Juan II. T., Th., 11:30-12:30. Dr. Umphrey.

Course 14 is open to students who have passed in Course 8. It is omitted in 1907-08; will be given in 1906-07.

15. **Italian Literature in the Thirteenth and Fourteenth Centuries.** — Selections from Dante, Petrarca, Boccaccio. Early Italian—D'Ancona e Bacci, *Manuale della letteratura italiana*, Vol. 1. Monaci's, *Crestomazia italiana dei primi secoli.* T., Th., 10:30-11:30. Associate Professor Liberma.

Course 15 is open to students who have passed in Course 7. It is given in 1907-08; will be omitted in 1906-07.

16. **History of Old French Literature,** from the Origins to the end of the Fifteenth Century. Lectures and reports. T., Th., 1:30-2:30. Associate Professor Liberma.

Course 16 is open to students who have passed in Course 4. It is given in 1907-08; will be omitted in 1906-07.

17. Seminary.—The development of the legend of the Holy Grail in France. (1906-07). The Life and Works of Lamartine, Alfred de Musset, and Alfred de Vigny. (1907-08). Credit according to work done. Hours to be arranged.

Associate Professor Liberma.

Course 17 is open to students only on permission.

18. Latin and Romance Palaeography. (See under "Latin").

Professor Burnam.

UNDERGRADUATE COURSES.

Graduate students are at liberty to elect undergraduate courses for the purpose of making up deficiencies in the subjects chosen as majors or minors. When such courses are elected graduate students are expected to conform in every respect to the regulations governing undergraduates in such courses. No credit toward an advanced degree will be given for such work. For a list of undergraduate courses see *Announcement of the College of Liberal Arts.*

UNIVERSITY OF CINCINNATI

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(Mechanical, Electrical, Civil, and Chemical Engineering)

V. The College of Law.
(The Cincinnati Law School.)

VI. The College of Medicine.
(Medical College of Ohio.)

VII. The Technical School.
(A Manual Training High School.)

VIII. The Department of Clinical Medicine.
(The Clinical and Pathological School of the Cincinnati Hospital.)

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